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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,944	12/29/2005	Ian K. Engelman	0420US-Engelman	4404
23521 7590 05/12/2009 SALTAMAR INNOVATIONS 30 FERN LANE SOUTH PORTLAND, ME 04106			EXAMINER JACKSON, BRANDON LEE	
			ART UNIT 3772	PAPER NUMBER
			MAIL DATE 05/12/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,944	Applicant(s) ENGELMAN, IAN K.	
	Examiner BRANDON JACKSON	Art Unit 3772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-18 and 20-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7, 9, 11--18, 20-22, and 24-26 is/are rejected.
- 7) ☒ Claim(s) 6,8,10 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to amendments/arguments filed 2/3/2009.
Currently, claims 1, 3-18, and 20-26 are pending in the instant application.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-18, and 20-26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-5, 7, 9, 10-13, 18, 20-22, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ceriani et al. (US Patent 6,527,733) in view of Bartlett (US Patent 6,074,355). Ceriani discloses an articulated orthosis (10) having

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first and second hinged shell parts (24, 30) having outer and inner surfaces, and a joint (18) for hinging the first and second shell parts (24, 30). The orthosis (10) comprising a tension element (54) having a first and anchor point (68) coupled to the first hinged shell part (24) and a second anchor point (68) coupled to the second hinged shell part (30), wherein the tension element (54) has a flat outer surface that is substantially co-planar to the inner surface of the inner surface of the orthosis (10), a first and second compression surface (92) coupled to the first and second hinged shell (24, 30) respectively, and a compression element (91) disposed between the compression surfaces (92). When the compression surfaces (92) are in contact with compression element (91) compression forces are transmitted through the compression element (91), eventually stopping the angular motion between the first and second hinged shell parts (24, 30). The compression element (91) limits the angular range of motion of the joint (18) by stopping the joint at an angle corresponding to the height of the compression element (91), therefore changes in the height (dimensions) of the compression element (91) would vary the angle between the hinged shell parts (24, 30). The modulus of elasticity of the compression element (91) would vary the resistance to the moment force applied by the hinged shell parts (24, 30) because it would determine how much the device could compress and the amount of force necessary to compress the compression element (91). The compression surfaces (92) are adjustable because their angular orientation and distance from one another may be adjusted by movement of the hinged shell parts (24, 30), as the compression surfaces (92) are integral (fig. 2)

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to the hinged shell parts (24, 30). The tension element (54) comprises anchor points (68) transverse (fig. 2) to the flat side of the of the tension element (54).

With respect to claim 7, the orthosis (10) includes a plurality of retaining walls (54, 60) forming a chamber that contains the compression element (91), wherein the tension element (54) defines a boundary of the chamber.

With respect to claim 18, the orthosis (10) includes a plurality of retaining walls (60, 52) coupled to the hinged shell parts (24, 30) at points (68). The walls (60, 52) form a chamber that contains the compression element (91).

With respect to claim 20, Ceriani does not explicitly state that the tension element is retained in place by the forces applied by the compression element. However, this claim is an apparatus claim; therefore, the reference only needs to teach the structural elements of the claim the method of assembling the device or use of the device. Therefore, Ceriani meets the claim limitations of claim 20 by having a tension element (54) that is held in place by anchors (64, 66) and a compression element (91) that applies force. The anchors (64, 66) that hold the tension plate (54) in place function as supports.

Ceriani fails to disclose the material of the compression element. However, Bartlett teaches a hinged orthosis (10) comprising a compression element (60) disposed between hinged shell parts (16, 18). The compression element (60) is made of a resilient material (col. 5, lines 57-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Ceriani compression element to be made of a resilient material, as taught by Bartlett, in order for the hinge to

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provide the user with a cushioning effect when reaching the hinge's angular limits (col. 5, lines 46-50).

Ceriani/Batlett fails to disclose the tension element has an overall bending stiffness in the between 0.2 and 0.5 Nm, and the tension element is integral to one of the hinged shell parts. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the overall bending stiffness of the tension element be between 0.2 and 0.5 Nm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). This result effective variable would be optimized to the needs of each user.

Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the tension element formed integrally with the hinged shell part, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Allowable Subject Matter

Claims 6, 8, 10, 14, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANDON JACKSON whose telephone number is (571)272-3414. The examiner can normally be reached on Monday - Friday 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571)272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brandon Jackson/
Examiner, Art Unit 3772

BLJ

/Patricia Bianco/
Supervisory Patent Examiner, Art Unit 3772